

Claims

1. Transmission device (10) for transmitting electrical signals between a rotor (12) and a stator (14) with an annular space (16) formed by the rotor (12) and the stator (14), wherein the space (16) receives at least one flat strip cable (22) which extends between the rotor (12) and the stator (14) and can be wound and unwound in the space (24), and wherein an elastically resilient annular band (32) is provided in the space to support the flat strip cable (22), characterized in that the annular band (32) can be driven by the rotor (12) and/or by the stator (14) via engagement sections (34) on the side of the annular band.
2. Device (10) according to claim 1, characterized in that the engagement sections (34) on the upper and/or lower edge of the annular band (32) are formed as tooth-gap-like recesses (35) which cooperate with complementary tooth-like drive sections (38, 39) of the rotor (14) and/or of the stator (12) to drive the annular band (32).
3. Device (10) according to claim 2, characterized in that the drive sections (38, 39) of the rotor and/or stator are disposed on or proximate to the bottom (36) of the space (16).
4. Device (10) according to claim 2 or 3, characterized in that the drive sections (38, 39) extend in an axial and radial direction such that the free edge of the flat strip cable can seat on the drive sections (38, 39).
5. Device (10) according to claim 4, characterized in that the individual drive sections (38, 39) comprise a substantially cuboid main part

(40) and an end part (42) which faces the space in a radial direction and tapers towards the bottom (36).

6. Device (10) according to any one of the preceding claims, characterized in that the annular band (32) has deformation indentations (44) which extend substantially parallel to the axis of rotation of the rotor for caterpillar-like rolling.
7. Device (10) according to claim 6, characterized in that a tooth (50) extends in the longitudinal direction of each deformation indentation (44) to delimit a tooth-gap-like recess (35) of the engagement section (34).
8. Device (10) according to any one of the preceding claims, characterized in that several annular bands (32) are provided in the space (16) in such a manner that respective neighboring annular bands (32) do not contact each other.
9. Annular band (32) for the device according to any one of the preceding claims.